

Title (en)

METHOD AND DEVICE FOR PRODUCING POLYCRYSTALLINE SILICON BLOCKS

Title (de)

VERFAHREN UND VORRICHTUNG ZUM HERSTELLEN VON POLYKRISTALLINEN SILIZIUMBLÖCKEN

Title (fr)

PROCÉDÉ ET DISPOSITIF DE FABRICATION DE BLOCS DE SILICIUM POLYCRISTALLINS

Publication

**EP 2582639 A1 20130424 (DE)**

Application

**EP 11725343 A 20110610**

Priority

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Abstract (en)

[origin: WO2011157382A1] The invention relates to a device and method for producing a polycrystalline silicon block in a melting crucible which is disposed in a process chamber and filled with silicon material. The silicon material is melted in the melting crucible in order to form a silicon melt and is then cooled to below the solidification temperature of the silicon. During a section of the process, a plate element which is located in the process chamber and has a through-opening can be disposed above the silicon melt and cooled in the melting crucible to below the solidification temperature of the silicon melt; and a gas flow can be directed at least partially via the at least one through-opening in the plate element onto the surface the silicon melt. Alternatively, a method and a melting crucible arrangement consisting of a melting crucible and a retaining ring are described. The retaining ring can be placed on or above a melting crucible filled with silicon material, such that additional silicon material can be received in the retaining ring such that the additional silicon material is retained above the melting crucible by the retaining ring. During heating of the silicon material in the melting crucible and of the additional silicon material in the retaining ring, a silicon melt is formed in the melting crucible and can then be cooled to below the solidification temperature of the silicon.

IPC 8 full level

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Citation (search report)

See references of WO 2011157382A1

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